AHMAD IKHWAN ZAMANI

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INTRODUCTION

Hi! I'm a data engineering professional with a passion for building data pipelines, developing generative AI solutions, and optimizing operational workflows.

TECHNICAL SKILLS

SQL (Snowflake, Netezza, SQL Server), ASP.net, C#, Python (incl. Pandas, Numpy etc), DBT, IBM DataStage, Airbyte, Airflow, ZENA, Freshdesk development, Tableau, External API call, Streamlit

WORK EXPERIENCE

Data Engineer - TUI Group   Mar 2025 - Present

Data Engineering & Data Processing (Airbyte, DBT, BigQuery, Airflow, S3, Snowflake)

- Led the data engineering team in creating data architecture and developing end-to-end data pipelines, spanning from upstream data ingestion to data lakes, data warehouses, and downstream platforms like Tableau, N8N, and flat files.
- Data related to airline packages bookings from Qatar Airways, Gulf Air, MAS, and Oman Air
- Designed and implemented a new pipeline to handle post-sales booking changes by integrating external APIs, orchestrating ingestion through Airflow, transforming data via DBT, and consolidating results into a centralized bookings reporting table.
- Enhanced pipeline reliability by implementing robust error-handling mechanisms, including automated alerts, data validation, and data recovery SOPs.
- Consolidated job scheduling into Airflow to replace separate cron jobs and platform-specific schedulers (e.g., Tableau flows), reducing data inconsistency and ensuring synchronization across all downstream systems.
- Automated finance reporting and reconciliation processes (AP/AR) by ingesting payment gateway data, transforming and merging it with core bookings and post-sales datasets to streamline reporting workflows.

Data Visualisation & Analytics (Tableau)

- Assist finance, IT ops, customer service team in preparing view and dashboard in Tableau
- Analyzed product-level performance metrics, such as flight stopover upgrades, by leveraging Python scripts during upstream data transformations.
- Migrated complex Excel-based reporting used by the finance team into automated Tableau dashboards, reducing manual effort and improving data accuracy.

Operations Optimisation & Automation (N8N, Freshdesk, DataDog)

- Built automated workflows in N8N to create Freshdesk support tickets via API for flagged bookings (e.g., potential fraud or upgrade cases), enhancing customer service responsiveness.
- Integrating data from Snowflake into our ticketing platform Freshdesk which is used by the CS team
- Ingesting DataDog via API calls to be used for automated reporting for system errors

Senior Executive, ETL & .NET Developer - AmBank Group   Jan 2023 - Feb 2025

ETL Development & Data Processing (IBM DataStage, Netezza, ZENA scheduler)

- Data involved is for report submission to Bank Negara Malaysia (BNM). Main data sources are from REP, EALIS, PIDM, and CCRIS, modifying the ETL logic to follow reporting requirements and ensuring regulatory compliance.
- Refined the scheduling strategy in ZENA for the batch jobs to better align with the performance constraints of the on-premises database server. This reduced peak load impact, minimized job collisions, and improved overall batch runtime efficiency.

- Pioneered EPM tech refresh project development. Created a new data pipeline to integrate with the new EPM server that involves dynamically generating flat files that is compatible with the new system.

Automation & Shell Scripting (Shell, Bash)
- Involved in creating new/enhancing Shell script to automate task like:
  - sending files to new server (using CFT protocol)
  - removing null, columns for txt files (based on certain delimiter) for initial and post processing before data goes into ETL jobs
- Built a .net console app to automate some checking in the database

BAU Support & Monitoring (WinSCP, ZENA)
- Part of BAU team to standby on batch job run on a rotational basis. I monitor the data pipeline and fix issues like source data quality (null values, incorrect formatting), failed data pipeline, and intervene when DB server is having performance where we would need prioritize on data with strict SLA

Web Application Development (ASP.NET, MS SQL Server)
- Sole developer for an internal GUI web application built using ASP.NET (C#) for front-end and Microsoft SQL Server as the back-end database.
- This GUI is a front-end for downstream users to interact with data to dynamically create report, upload submissions, and modify report.
  Key developments:
  - Redesigned the session management logic to address issues caused by users remaining idle or not logging out, which previously led to account lockouts. The system now cross-checks session IDs and automatically updates the session status when a new login attempt is detected, reducing unnecessary account locks and improving user experience.
  - Developed a secure self-unlock mechanism for users whose accounts were auto-locked due to inactivity, especially during quarterly or annual reporting periods. Users receive a unique unlock code to regain access, with all unlock requests logged in an audit table for administrative oversight and compliance tracking.
  - Debugged and optimized components within the ASP.NET framework and underlying stored procedures to address critical issues related to report generation failures, file upload errors, and server timeouts - enhancing overall system performance and reliability.

Executive, Digital Graduate - AmBank Group   May 2022 - Dec 2022
- Revised existing chatbot on Power Virtual Agent
- Built a PowerApps for domain whitelist request on SharePoint that automates the application process from end-to-end (user, reviewer, approver, and whitelist execution)

Tech Intern - Distributed Energy   Dec 2020 - Jan 2021
- Created a web application for the company's internal operations using Python using Streamlit
- Transform their Excel based operation into a web based calculation. Calculated data could be exported from the website.

EDUCATION

Bachelor of Electrical Engineering (Honors) Major in Telecommunications   May 2022
University of Sydney   (Honours Class II, Division I)

ADDITIONAL INFORMATION

- **Languages:** English, Malay
- **Certifications:** Data Science Immersive, IBM Data Engineering Professional